

## Wyoming School Funding Model Recalibration: Transportation Reimbursement Model Study

Robert Schoch and Dr. William Hartman, Education Finance Decisions
For
Augenblick, Palaich and Associates, Inc.

Presentation to the Select Committee
Casper, WY
November 2017

### Purpose of the Study

- The purpose of this study is to evaluate the transportation funding formula and the factors that effect reimbursement
- Based on this evaluation, various options to refine the formula are presented
- The study involves extensive data analysis to identify issues and trends in the factors that drive transportation costs and reimbursement
  - This analysis identifies factors that can be incorporated into incentives for efficiency and proposes to target incentives for the greatest long-term financial benefit
  - It also discusses programs necessary to implement efficiency incentives

## **Transportation Funding Grant**

- Through 2017-18, operations costs for transporting students to and from school and for student activities were 100% reimbursed for prior year's approved costs
- Bus purchases and leases were also 100% reimbursed based on meeting minimum standards and according to schedules and other requirements established by state statute and WDE rules

## **Transportation Funding Grant**

- Beginning with FY 2018-19, operations costs for transporting students to and from school and for student activities will be based on the three year average of these expenditures for the years 2013-14 through 2015-16
- Also, bus purchases and leases made on or after March 15, 2017 will only be reimbursed if approved by WDE as an emergency purchase

# Transportation Funding Formula Reimbursable Costs

#### The reimbursable costs include:

- 1. activity trip expenses;
- 2. advertising expenses;
- 3. administrative cost and benefits for supervisors, mechanics, clerical support, bus and loading zone aides, other personnel assigned to the transportation department;
- 4. bus maintenance equipment;
- 5. bus garage utilities;
- 6. communication services;
- 7. computer expenses;
- 8. contracted services;
- 9. field trip expenses;
- 10. Global Positioning Systems;

# Transportation Funding Formula Reimbursable Costs

#### The reimbursable costs include (continued):

- 11. insurance buses and bus garage;
- 12. isolation and maintenance payments;
- 13. periodicals;
- 14. physical examinations for bus drivers;
- 15. purchased services;
- 16. school bus repairs and maintenance;
- 17. school bus driver salaries and benefits;
- 18. supplies;
- 19. training expenses/professional development;
- 20. travel costs; and
- 21. video cameras.

# Transportation Funding Formula Non-reimbursable Costs

- The non-reimbursable costs include:
  - 1. purchase of staff vehicles, non-school bus vehicles, and non-conforming vehicles;
  - 2. maintenance and repair of staff vehicles, non-school bus vehicles, and non-conforming vehicles;
  - 3. expenses incurred as a result of busing students from a large attendance center to a small attendance center in an effort to keep the smaller attendance center open or increase its average daily membership;
  - 4. indirect costs;
  - 5. reclining school bus seats and related repair costs; and
  - 6. bus garage and site repairs and maintenance.

#### **Vehicle Funding**

- School bus purchases and leases are also reimbursed subject to detailed regulations that control bus equipment and design standards
  - Safety features in the regulations include crossing arms, Global Positioning Systems (GPS), and video cameras
  - The regulations establish life cycles and require vehicles to be disposed of when replaced. Replacement with a larger bus must be justified to the Wyoming Department of Education (WDE)
  - Districts requesting additional vehicles must address the issue of using buses for multiple routes
    - The size of the bus fleet is fixed at 1999 levels, is reviewed if Average Daily Membership (ADM) decreases by 15% or more over 3 years, and justification is required for increasing the fleet size

### **Operating Standards**

- The rules and regulations for school bus transportation establish the operating standards. These include:
  - Minimum walking distance which varies by grade level
    - Elementary minimum walking distances are 1.0 miles
    - Middle school distances are 1.5 miles
    - High school distances are 2.0 miles
  - Hazardous circumstances can allow busing at closer distances
  - Transportation provided within the walking zones is not reimbursed unless hazardous factors exist

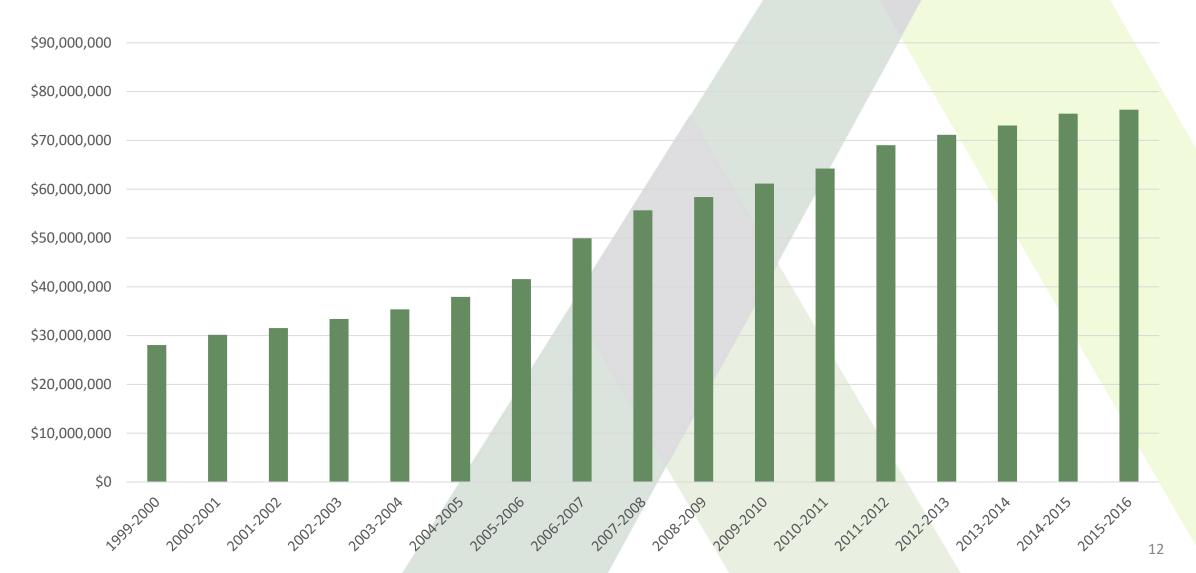
# Extensive Data Analysis to Understand Trends, Cost Drivers, and Formula Components

- The slides that follow show extensive data analysis with conclusions for each section: reimbursement, expenditure data analysis, and operating data analysis
- Understanding these trends is critical to the development of a funding formula that promotes efficient transportation systems in Wyoming school districts

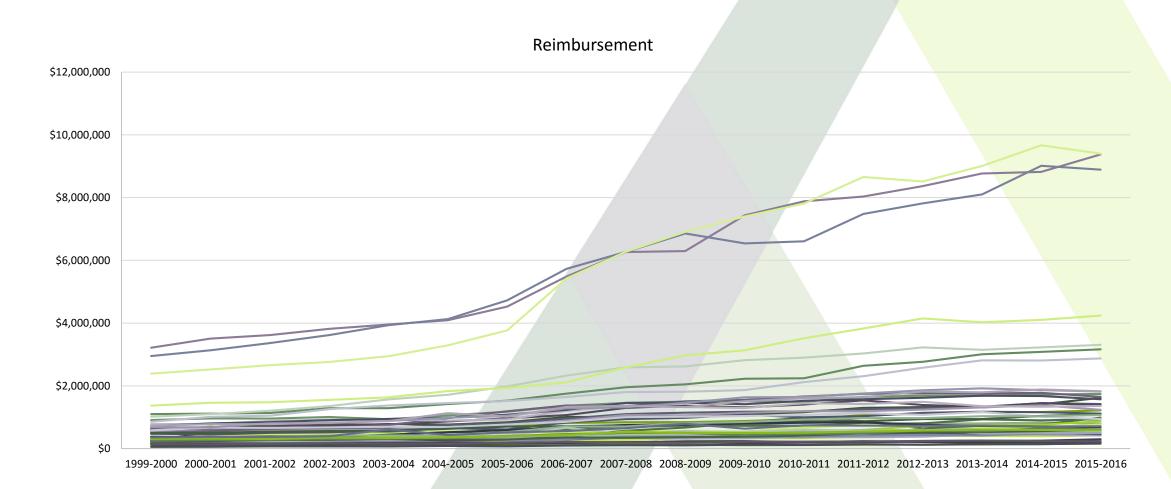
#### **Transportation Reimbursement Trends**

- Statewide Trends
- District Trends
- Reimbursement per Student Transported
- Reimbursement per Vehicle vs. Students Transported
- Transportation Cost and Reimbursement, % Change
- Total Reimbursement by District
- Transportation Reimbursement by District Size

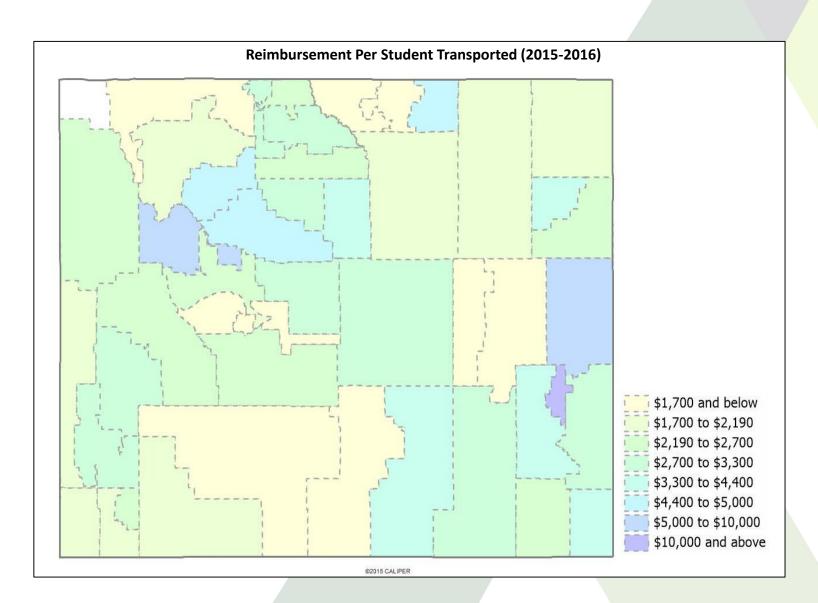
# Transportation Operations Reimbursement Trends, State Total Overtime



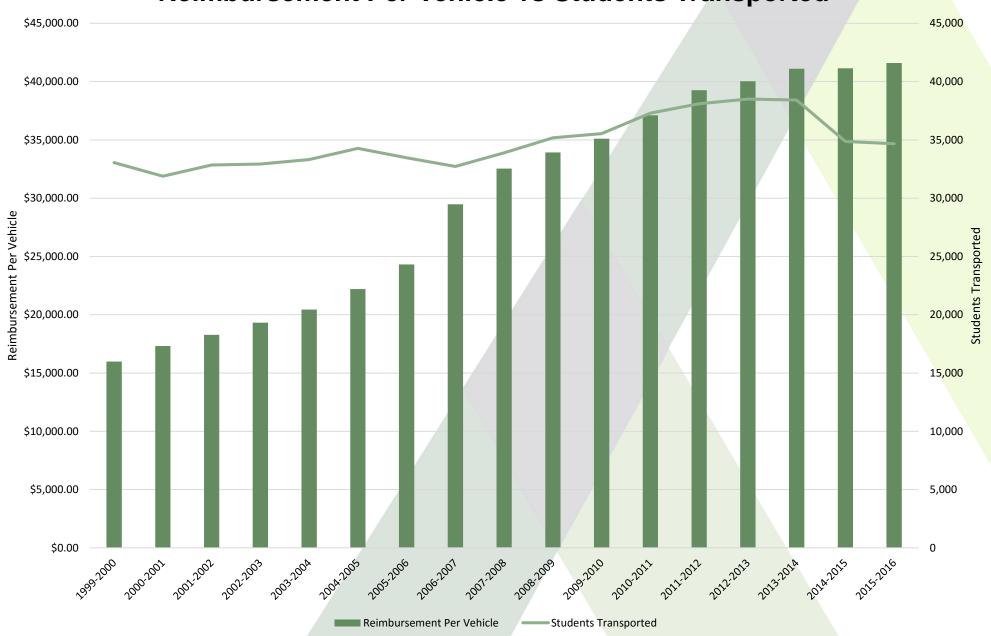
# Transportation Reimbursement Trends, by District



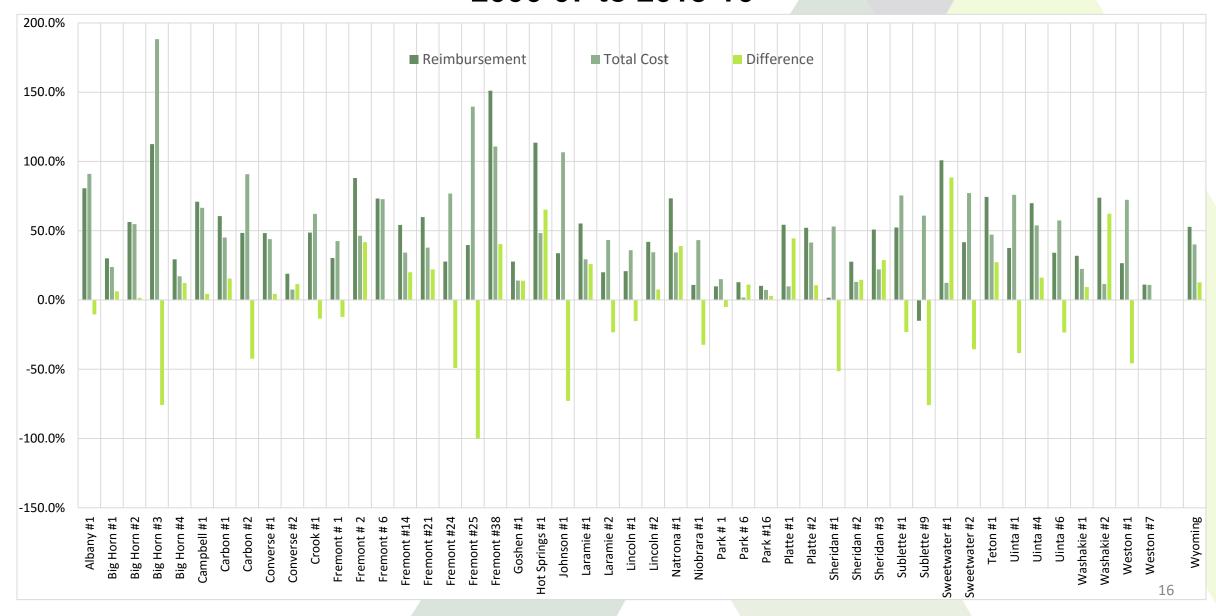
## Reimbursement per Student Transported



#### Reimbursement Per Vehicle vs Students Transported

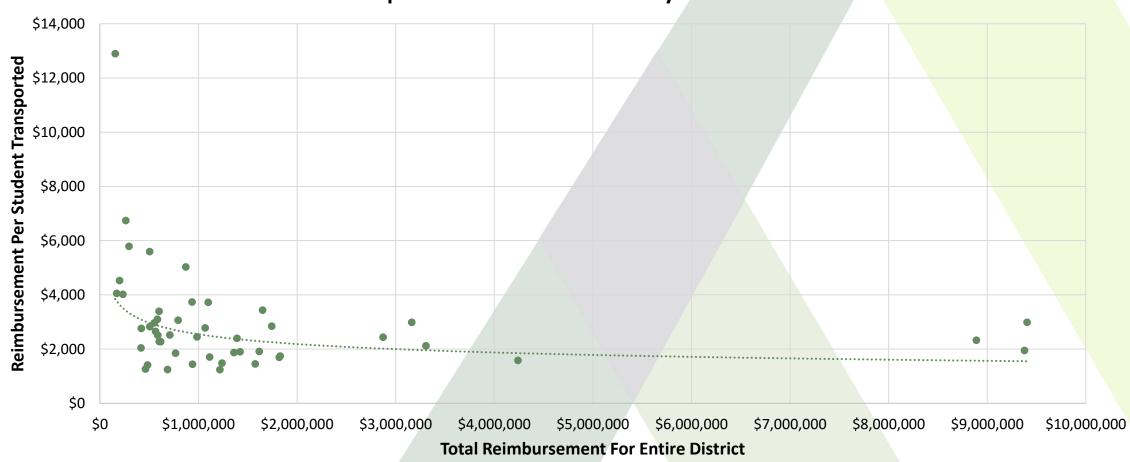


# Percentage Change in Transportation Costs and Reimbursements 2006-07 to 2015-16



# Transportation Reimbursement by District Size 2015-16

#### **Transportation Reimbursement by District Size**



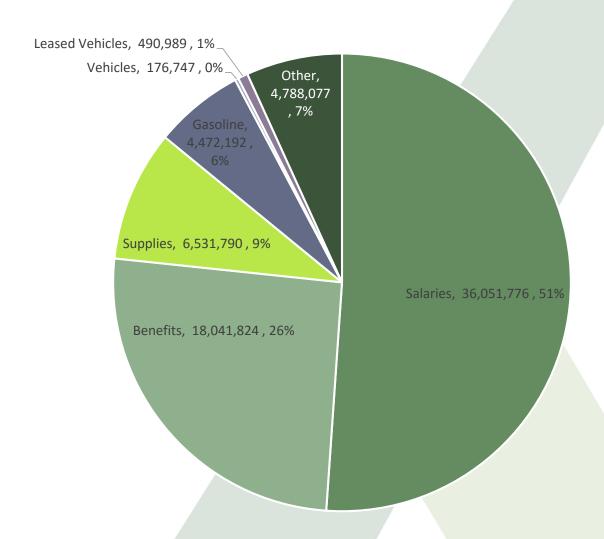
## **Conclusions on Transportation Reimbursement**

- Reimbursement increased from \$28 million in 1999-2000 to \$78 million in 2015-16
- Reimbursement in several large districts increased faster than most other districts
- Reimbursement per student transported ranged from below \$1,700 to over \$10,000 per year

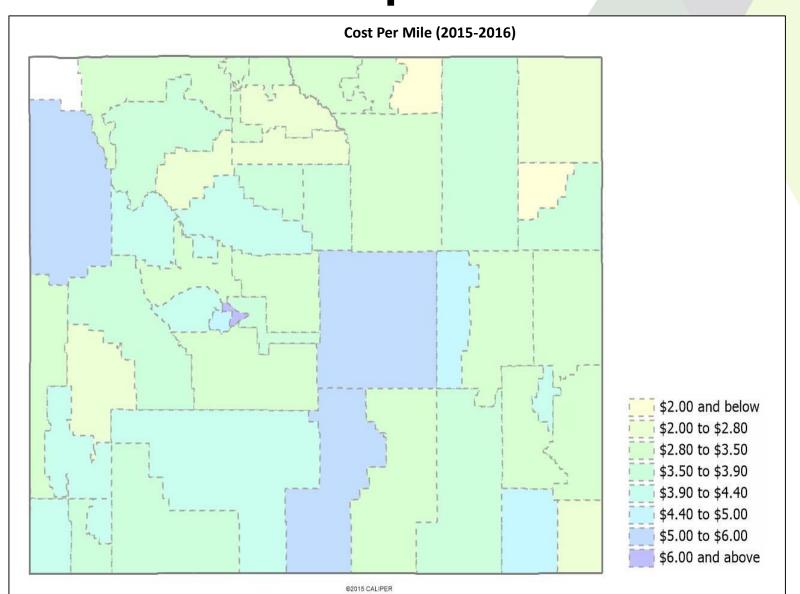
### **Transportation Cost Analysis**

- Transportation Cost Components: pie chart
- Cost per Mile
  - Percentage Change
  - Cost per Mile Trend vs. Consumer Price Index
  - Cost per Mile Trend vs. Students Transported Trend
- Cost Component Trends
  - Salaries
  - Retirement
  - Group Insurance (health care)
  - Supplies
  - Gasoline

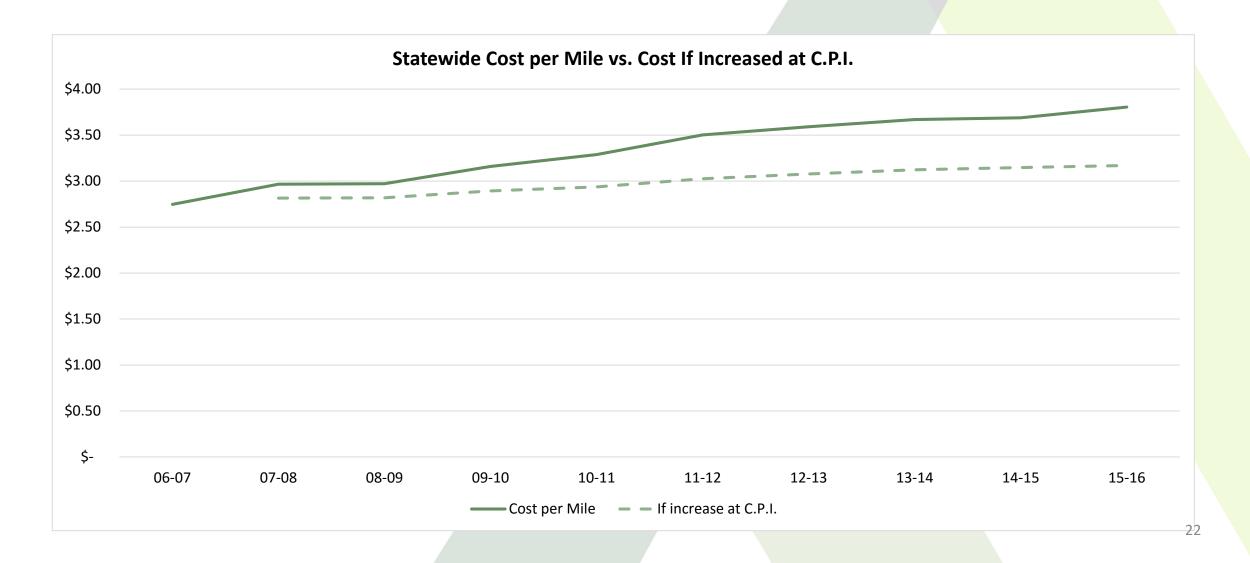
#### **Transportation Expenditures: 2016-17**



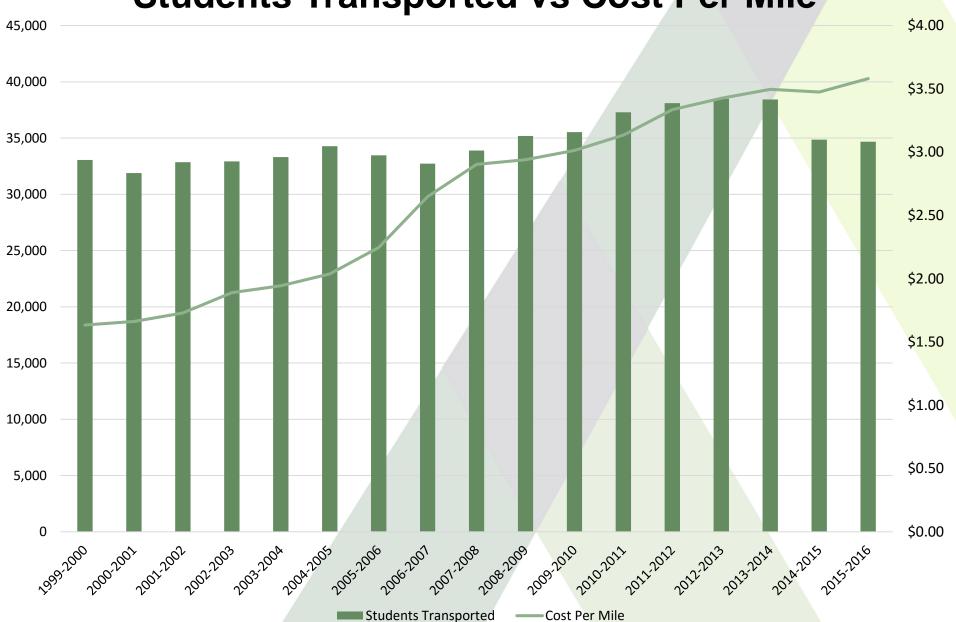
# **Cost per Mile**



# Cost per Mile Trend Compared to Consumer Price Index (C.P.I.)



#### **Students Transported vs Cost Per Mile**



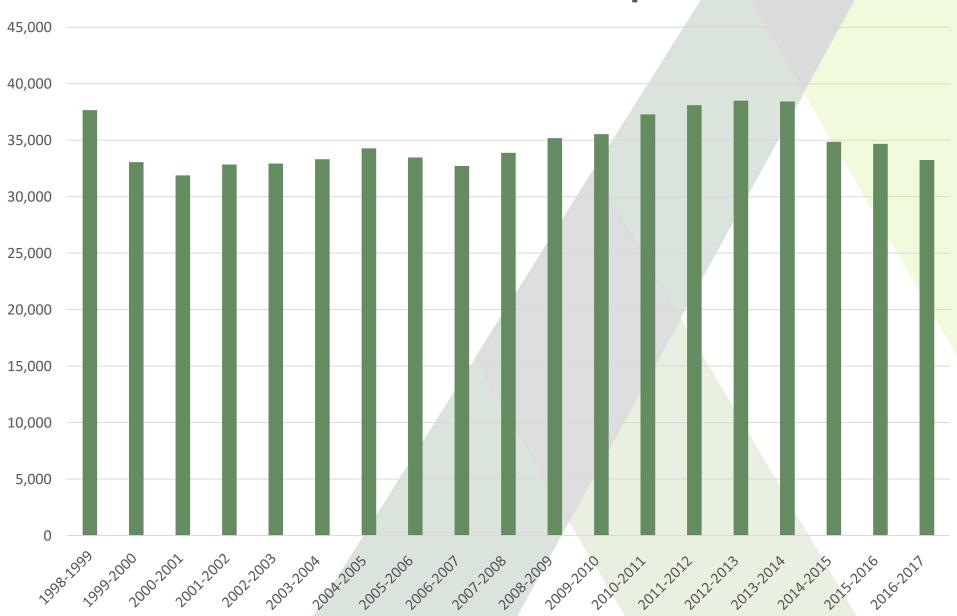
### **Conclusions from Transportation Cost Analysis**

- The number of vehicles determines the number of drivers with salary and benefits. Combined these cost exceed 60% of the cost of transportation
- The cost per mile varies from under \$2 per mile to over \$6 per mile
- The percent change in cost per mile ranges from no change to over 180% in 10 years
- The cost per mile increased more than the Consumer Price Index
- The increase in various components of cost varied significantly by district, with several large districts increasing more than others

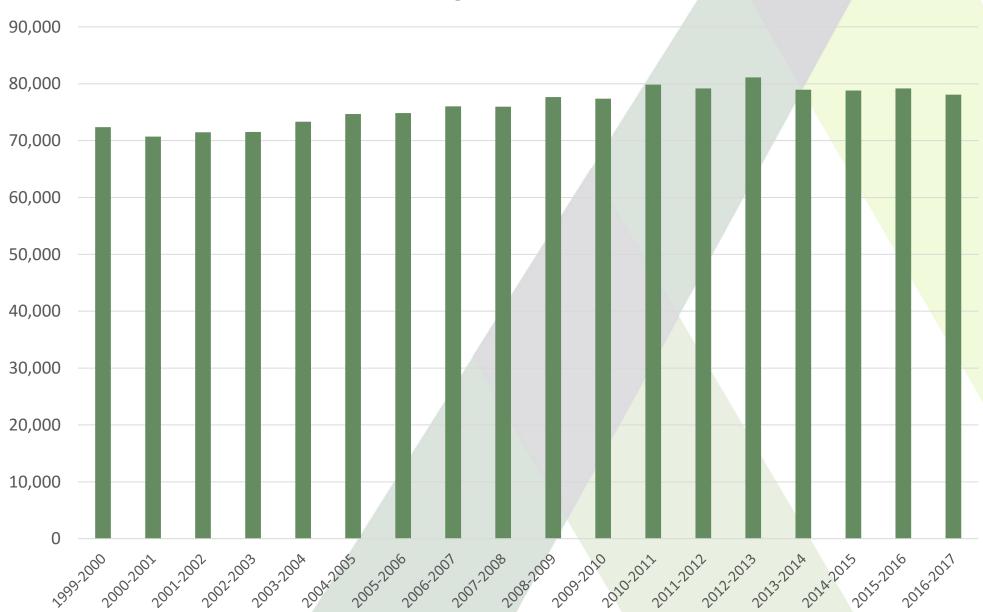
# **Operating Data Analysis**

- Students Transported
- Miles Transported
- Students per Vehicle
- Vehicles per Students Transported

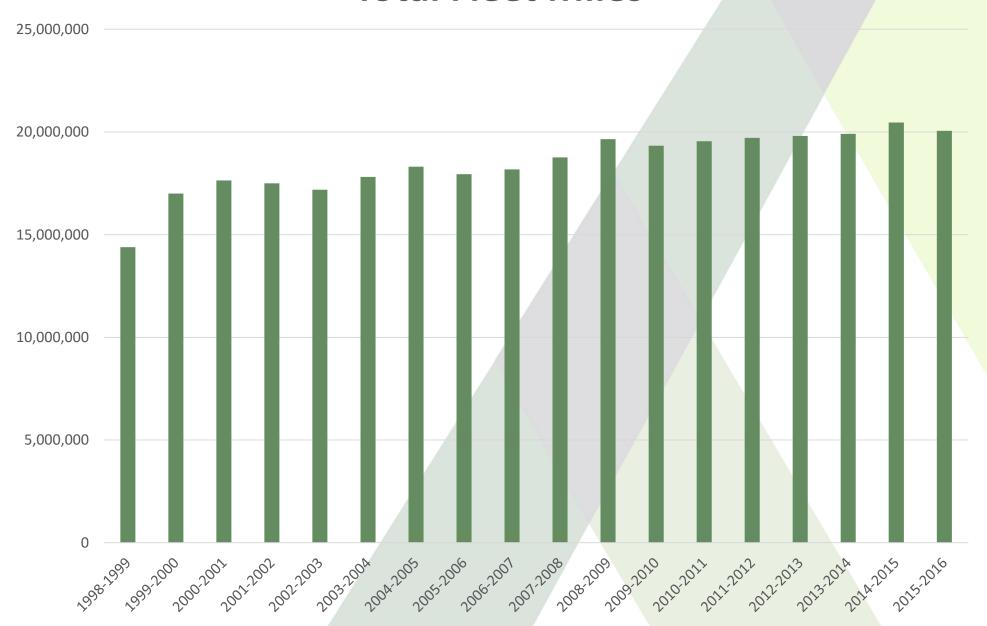
#### **Students Transported**



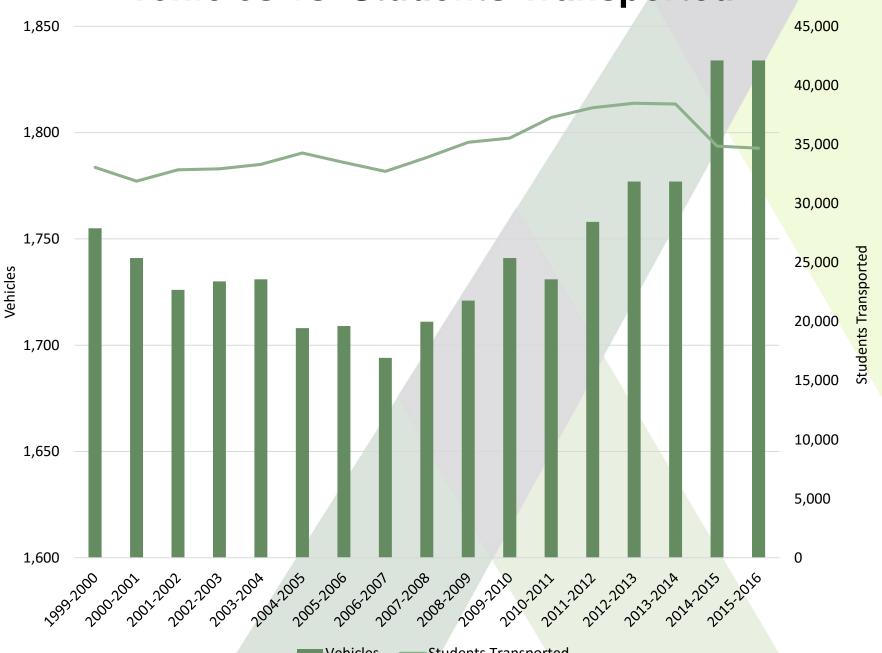
#### **Daily Miles**



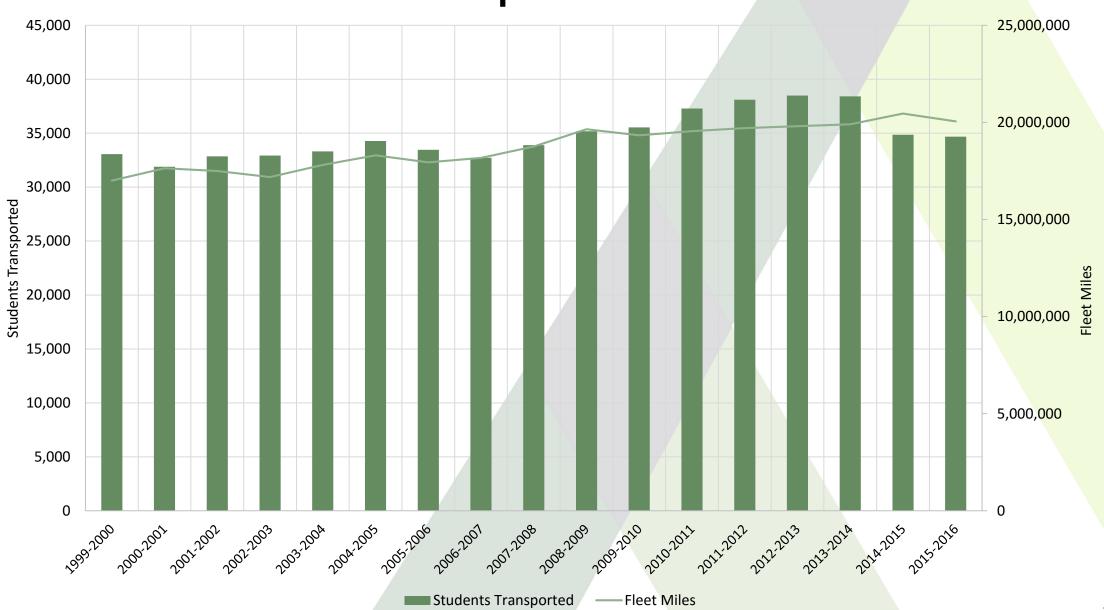
#### **Total Fleet Miles**



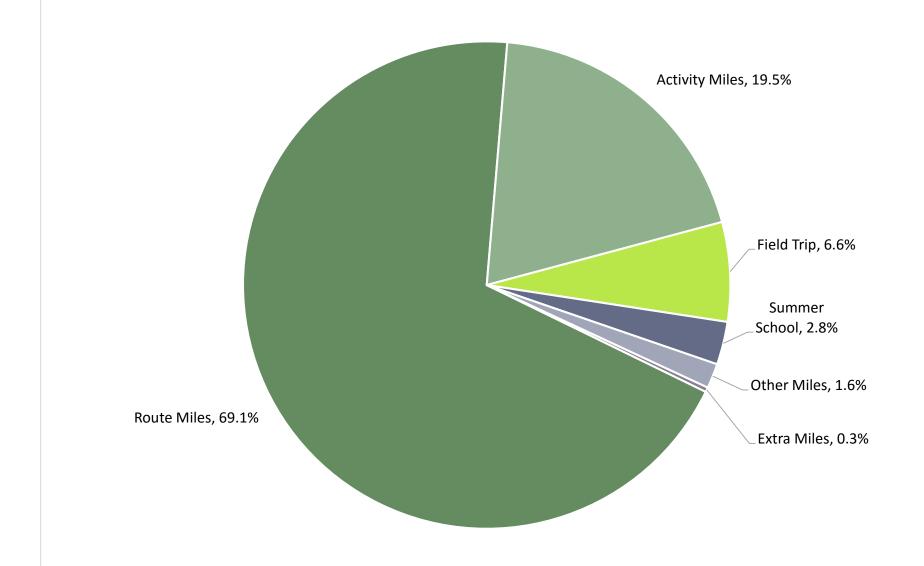
#### Vehicles vs. Students Transported



#### **Students Transported vs Fleet Miles**



# Statewide Types of Miles 2015-16



### **Conclusions from Operating Data Analysis**

- The number of students transported fluctuated up and down by more than 6,000 students from 1998-99 to 2016-17
- Daily and fleet miles both increased steadily
- Students transported by each vehicle ranges from two to 30, far below national benchmarks of efficiency at 100
- The number of vehicles increased with total enrollment, but outpaced increases in students transported
- The number of vehicles increased more rapidly than reimbursement
- The proportion of miles by type (route, activity, field trip, summer school, etc.) vary by district

#### **Recommendations: Preview**

- Refine the Current System
  - Enforce reimbursement regulations
    - Walking Zones
    - Capital Investment
  - Sharing transportation routes between districts
  - Consider parent contracts
- Promoting Efficiency
  - Use of seating capacity
  - Use of time available
  - Assignment of runs to routes to minimize buses needed
  - Technical assistance with transportation routing software
- Transitioning to a Density Formula
- Limiting Increases to a Transportation Cost Index

### Refining the Current System

#### Review the Methods of Enforcing Reimbursement Regulations

- Walking Zones: hazardous designations, calculation methods
- Capital Investment
  - Number of buses needed review any requests to replace or add buses with transportation routing efficiency concepts in mind. This is important because the number of buses determines the number of drivers, each with salaries and benefits.
- Sharing Transportation Routes Between Districts
  - In limited cases, a bus from one district may be driving through an adjacent district and be capable of transporting students from the other district and prorating costs. These opportunities should be identified and encouraged.
- Parent Contracts
  - In limited cases, use of parent contracts may reduce the number of buses needed or the length of the bus ride for other students. These possibilities should be encouraged.

# Promoting Transportation Efficiency Through Sophisticated Bus Routing

- Modern transportation routing software can optimize the use of seating capacity and time available, thereby reducing the number of buses required
- In addition, assigning buses to multiple routes each morning and afternoon can be facilitated by use of the advanced features of the software and knowledge of best practices in routing efficiency
- Technical assistance with transportation routing software may be necessary to achieve the best results
- In addition, advancing bus replacement decisions may offer high levels of return on investment, particularly if buses with higher capacity can reduce the total number of buses needed

### Transitioning to a Density Formula

- A number of states reimburse school transportation based on either area density (students per square mile) or linear density (students per linear mile travelled)
- Districts are grouped and reimbursed based on the cost of serving that density of students, generally on an average cost basis for each density
- The proposal is to offer pilot programs to improve transportation efficiency in a district within each group in order to establish best practice costs
- After several years of developing best practice models, the density formula would be implemented paying best practice cost, not average cost
- Once implemented, future reimbursement could be limited by a Wyoming specific transportation cost index applied to the cost per student transported